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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER				
PYZOCHA, MICHAEL J				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/028,382

**Applicant(s)**

EPSTEIN, MICHAEL A.

**Examiner**

MICHAEL PYZOCHA

**Art Unit**

2437

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☒ Claim(s) 1 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

1. Claims 1-6 are pending.
2. BPAI Decision rendered 04/28/2009 has been received and fully considered.

Prosecution is hereby reopened.

### ***Claim Objections***

3. Claim 1 is objected to because of the following informalities: in line 7 of claim 1 "has" should read "hash". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-3 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the mean of 35 USC §101.

They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*. These claims recite "hash devices" but there is no explicit hardware recited. Furthermore, the specification (see page 5 lines 20-21) states that the steps performed by hardware, software, or a combination of both. Therefore, these claims can be merely software. As such claims 1-3 are non-statutory under 35 USC 101. It is recommended to incorporate the hardware elements as described with reference to FIG. 1.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (US 5907619) in view of Simpson (US 6788775).

As per claims 1 and 4, Davis discloses a plurality of hash devices (see column 5 lines 21-28; Fig 3); each hash device of the plurality of hash devices being configured to receive a sequence of data values and apply a hash function to the received subset of the sequence of data values when enabled, said hash function being the same in a hash device (see column 5 lines 21-28; Fig 3); c) at least one comparator, operably coupled to the plurality of hash devices, that is configured to compare an output of each hash device to the source hash value, to facilitate a verification of the sequence of data values (see column 6 lines 1-19).

Davis discloses that one of the plurality of hash functions is the same in the sending and receiving device (see column 1 lines 1-4) and that each of the hash functions 135<sub>1</sub>-135<sub>4</sub> may be different (see column 5 lines 21-24). **(NOTE:** Applicant's specification states that the same hash function is used for comparing as the one used to generate the original hash as described on page 4 lines 14-15). Therefore, Davis fails to explicitly disclose that the hash function is the same in each hash device.

However, Simpson teaches the use of the same hash function in a plurality of devices (see column 6 lines 26-33).

Since each reference relies upon hash function for verification it would have been obvious to one of ordinary skill in the art to substitute the potentially different hash functions of Davis with the common hash function of Simpson to yield the predictable result of allowing multiple devices to validate data as taught by Simpson in column 6 lines 26-33.

As per claims 2 and 5, the modified Davis and Simpson system discloses each hash device is enabled sequentially (see Davis column 5 lines 21-28; Fig 3 and column 6 lines 1-19).

As per claims 3 and 6, the modified Davis and Simpson system discloses each hash device is enabled to receive and process K data values; the plurality of hash devices corresponds to K hash devices (see Davis column 5 lines 21-28; Fig 3 and column 6 lines 1-19).

7. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akiyama (EP 1041767) in view of Simpson (US 6788775).

As per claims 1 and 4, Akiyama discloses a plurality of hash devices (see paragraph [0029]); each hash device of the plurality of hash devices being configured to receive a sequence of data values and apply a hash function to the received subset of the sequence of data values when enabled (see paragraphs [0029], [0050], Fig 1, Fig 3A); at least one comparator, operably coupled to the plurality of hash devices, that is

configured to compare an output of each hash device to the source hash value, to facilitate a verification of the sequence of data values (see paragraph [0030], Fig 1).

Akiyama discloses that the plurality of hash functions in a single device are different (see paragraphs [0011], [0014], [0019] and [0025]), but fails to disclose whether the hash functions used in (referring to FIG. 1) the Hash Units 2 in the Certifying Station are the same as those used in the sending device Signing Station. (**NOTE:** Applicant's specification states that the same hash function is used for comparing as the one used to generate the original hash as described on page 4 lines 14-15).

However, Simpson teaches the use of the same hash function in a plurality of devices (see column 6 lines 26-33).

Since each reference relies upon hash function for verification it would have been obvious to one of ordinary skill in the art to substitute the potentially different hash functions of Akiyama with the common hash function of Simpson to yield the predictable result of allowing multiple devices to validate data as taught by Simpson in column 6 lines 26-33.

As per claims 2 and 5, the modified Akiyama and Simpson system discloses each hash device is enabled sequentially (see Akiyama paragraph [0062], Fig 4B).

As per claims 3 and 6, the modified Akiyama and Simpson system discloses each hash device is enabled to receive and process K data values; the plurality of hash devices corresponds to K hash devices (see Akiyama Fig 4A, Fig 4B).

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hind, Hopkins, Callon and Briscoe each teach using the same hash function in a plurality of devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL PYZOSHA whose telephone number is (571)272-3875. The examiner can normally be reached on Monday-Thursday, 7:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 2437

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